

Appl. No. 09/505,830  
Amtd. dated March 31, 2004  
Reply to Office action of December 31, 2003

Amendments to the Claims:

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Claims 1-5 (canceled)

2       Claims 6 (currently amended): An apparatus for providing a  
3       crypto key and an associated checkword of said crypto key to an  
4       encryption device for a telemeter system of a missile, said  
apparatus comprising:

5           a key loader having said crypto key and said associated  
6           checkword stored therein;

7           a microcontroller connected to said key loader to  
8           receive said crypto key and said associated checkword  
9           from said key loader, said microcontroller sending a  
10          first variable request signal to said key loader to  
11          effect a transfer of said crypto key and said  
12          associated checkword from said key loader to said  
13          microcontroller for storage within said  
14          microcontroller;

15          said microcontroller including an internal EEPROM for  
16          storing said crypto key and said associated checkword  
17          and a copy of said crypto key and said associated  
18          checkword;

19          said microcontroller being connected to said encryption  
20          device, said microcontroller sending a sense in signal

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21                   to said encryption device to initiate a load of said  
22                   crypto key and said associated checkword into said  
23                   encryption device;

24                   said microcontroller receiving from said encryption  
25                   device a second variable request signal, said  
26                   B5  
27                   microcontroller, responsive to said second variable  
                 request, loading said crypto key and said associated  
28                   checkword into said encryption device; and  
29                   said microcontroller being connected to a transmitter  
30                   for the telemeter system of said missile, said  
31                   microcontroller providing a transmitter disable signal  
32                   to said transmitter to disable said transmitter when  
33                   said crypto key and said associated checkword are  
34                   loaded into said encryption device preventing said  
35                   crypto key and said associated checkword from being  
36                   transmitted by said transmitter; and  
37                   said microcontroller containing a computer software program  
38                   for controlling, handling and interpreting said  
39                   transfer of said crypto key and said associated  
40                   checkword from said key loader to said microcontroller  
41                   for storage within the internal EEPROM of said  
42                   microcontroller, said computer software program

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43           controlling, handling and interpreting the storing of  
44           said crypto key and said associated checkword and said  
45           copy of said crypto key and said associated checkword  
46           within the internal EEPROM of said microcontroller,  
47           said computer software program controlling, handling  
48           and interpreting the loading of said crypto key and  
49           said associated checkword into said encryption device  
50           from the internal EEPROM of said encryption device, and  
51           said computer software program controlling, handling  
52           and interpreting a disabling of said transmitter when  
53           said crypto key and said associated checkword are  
54           loaded into said encryption device and an enabling of  
55           said transmitter after a successful load of said crypto  
56           key and said associated checkword into said encryption  
57           device.

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1       Claim 7 (original). The apparatus of claim 6 wherein said  
2       microcontroller comprises an 8-bit Microcontroller.

Claim 8 (canceled)

1       Claim 9 (original): The apparatus of claim 6 further comprising a

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2 light emitting diode connected to said microcontroller, said  
3 light emitting diode displaying a status for a load of said  
4 crypto key and said associated checkword into said encryption  
5 device.

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Claim 10 (canceled)

1 Claim 11 (currently amended): The apparatus of claim 10 further  
2 comprising a light emitting diode connected to said  
3 microcontroller, said light emitting diode displaying a status  
4 for an erase of said crypto key and said associated checkword and  
5 the copy of said crypto key and the associated checkword from the  
6 internal EEPROM of said microcontroller.

12 (canceled)

1 13 (currently amended). An apparatus for providing a crypto  
2 key and an associated checkword of said crypto key to an  
3 encryption device for a telemeter system of a missile, said  
4 apparatus comprising:  
5       a key loader having said crypto key and said associated  
6       checkword stored therein;

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7       an 8-bit microcontroller connected to said key loader to  
8           receive said crypto key and said associated checkword  
9           from said key loader, said 8-bit microcontroller  
10          sending a first variable request signal to said key  
11          loader to effect a transfer of said crypto key and said  
12          associated checkword from said key loader to said 8-bit  
13          microcontroller for storage within said 8-bit  
14          microcontroller;  
  
15        said 8-bit microcontroller including an internal EEPROM for  
16        storing said crypto key and said associated checkword  
17        and a copy of said crypto key and said associated  
18        checkword;  
  
19        said 8-bit microcontroller being connected to said  
20          encryption device, said 8-bit microcontroller sending a  
21          sense in signal to said encryption device to initiate a  
22          load of said crypto key and said associated checkword  
23          into said encryption device;  
  
24        said 8-bit microcontroller receiving from said encryption  
25          device a second variable request signal, said 8-bit  
26          microcontroller, responsive to said second variable  
27          request, loading said crypto key and said associated  
28          checkword into said encryption device;

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29       said 8-bit microcontroller being connected to a transmitter  
30                  for the telemeter system of said missile, said 8-bit  
31                  microcontroller providing a transmitter disable signal  
32                  to said transmitter to disable said transmitter when  
33                  said crypto key and said associated checkword are  
34                  loaded into said encryption device preventing said  
35                  crypto key and said associated checkword from being  
36                  transmitted by said transmitter;

37        a first light emitting diode connected to said  
38                  8-bit microcontroller, said first light emitting diode  
39                  displaying a status for a load of said crypto key and  
40                  said associated checkword into said encryption device;  
41        said 8-bit microcontroller being connected to a missile  
42                  interface within said missile to receive a launch  
43                  signal from said missile interface upon a launch of  
44                  said missile, said 8-bit microcontroller, responsive to  
45                  said launch signal, erasing said crypto key and said  
46                  associated checkword and the copy of said crypto key  
47                  and said associated checkword from the internal EEPROM  
48                  of said 8-bit microcontroller;

49        a second light emitting diode connected to said  
50                  8-bit microcontroller, said second light emitting diode

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51                   displaying a status for an erase of said crypto key and  
52                   said associated checkword from said 8-bit  
53                   microcontroller; and  
54                   said 8-bit microcontroller containing a computer software  
55                   program for controlling, handling and interpreting said  
56                   transfer of said crypto key and said associated  
57                   checkword from said key loader to said 8-bit  
58                   microcontroller for storage within the internal EEPROM  
59                   of said 8-bit microcontroller, said computer software  
60                   program controlling, handling and interpreting the  
61                   storing of said crypto key and said associated  
62                   checkword and said copy of said crypto key and said  
63                   associated checkword within the internal EEPROM of said  
64                   8-bit microcontroller, said computer software program  
65                   controlling, handling and interpreting the loading of  
66                   said crypto key and said associated checkword into said  
67                   encryption device from the internal EEPROM of said  
68                   encryption device, said computer software program  
69                   controlling, handling and interpreting a disabling of  
70                   said transmitter when said crypto key and said  
71                   associated checkword are loaded into said encryption  
72                   device and an enabling of said transmitter after a

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73           successful load of said crypto key and said associated  
74           checkword into said encryption device, and said  
75           computer software program controlling, handling and  
76           interpreting the erasing of said crypto key and said  
77           associated checkword and the copy of said crypto key  
78           and the associated checkword from the internal EEPROM  
79           of said 8-bit microcontroller.

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14-15 (canceled)

1           16 (currently amended). The apparatus of claim 13 wherein  
2        said 8-bit microcontroller is connected to a loader interface  
3        within said missile to receive an erase signal from said loader  
4        interface, said 8-bit microcontroller, responsive to said erase  
5        signal, erasing said crypto key and said associated checkword and  
6        the copy of said crypto key and the associated checkword from the  
7        EEPROM of said 8-bit microcontroller.